

### **REMARKS**

In accordance with the foregoing, claims 1, 12, 16, 24, 25, and 30 are amended. No new matter is presented in any of the foregoing and, accordingly, approval and entry of the amended claims are respectfully requested.

Claims 1-30 are pending and under consideration.

### **CLAIM AMENDMENTS**

Claims 1, 16, and 30 are amended to recite, respectively, an input system and an input device, using claim 1 as an example, including "a transmission part substantially simultaneously transmitting a first signal and a second signal generated by having a plurality of different carrier frequencies modulated with the same input information." (See for example, page 8, starting at line 30).

Claims 12 and 24 are amended to recite, respectively, an input system and an input device, using claim 12 as an example, including "a transmission part transmitting signals generated by having a carrier frequency modulated with the same input information." (See, for example, FIG. 8).

Claims 13 and 25 are amended to recite, respectively, an input system and an input device, using claim 13 as an example, including "a switching part switchable between said wave direction parts based on a control signal supplied from said information generation part so that each of the signals transmitted from the transmission part is supplied to a corresponding one of the wave direction parts."

No new matter is presented in any of the foregoing and, accordingly, approval and entry of the amended claims are respectfully requested.

### **BACKGROUND**

A Final Office Action mailed July 23, 2004 rejected claims 1-30 under 35 U.S.C. §102(e) as anticipated by Berstis (U.S.P. 6,229,526).

Applicants' representative conducted an in-person and a telephonic interview with the Examiner on October 19 and 20, 2004, respectively. The Examiner stated unless new art was discovered during an updated search, the Examiner would recommend the case for allowance. Applicants filed a Response and Request For Reconsideration documenting the same on October 25, 2004.

A Notice of Appeal was filed on January 24, 2005, since as of January 24, 2005 the Examiner had not acted on the Response and Request for Reconsideration.

**ITEM 2, PAGES 2-5: REJECTION OF CLAIMS 1-11, 16-23 AND 30 UNDER 35 U.S.C. §103(A) AS BEING UNPATENTABLE OVER BERSTIS IN VIEW OF HSIEN (U.S.P. 6441,804)**

The Examiner rejects independent claims 1, 16, and 30 and respective dependent claims 2-11 and 17-23 under 35 U.S.C. §103(a) as being unpatentable over Berstis in view of newly-cited art Hsien.

The Action concedes that Berstis does not teach "a transmission part (336) transmitting signals generated by having a plurality of different carrier frequencies modulated with the same input information." (Action at page 2).

However, the Examiner contends that Hsien teaches this feature by teaching a variable frequency modular circuit. (Action at page 3).

The Examiner further contends it would have been obvious to modify Berstis with Hsien for "the user to select different frequencies when employing more than one wireless cursor pointing." (Action at page 3).

Independent claims 1, 16, and 30, all as amended, recite, respectively, an input system and an input device, using claim 1 as an example, including "an information generation part generating input information based on a given input operation; a transmission part substantially simultaneously transmitting a first signal and a second signal generated by having a plurality of different carrier frequencies modulated with the same input information; and a reception part receiving the transmitted signals and demodulating the signals into the same input information."

That is, according to aspects of the present invention, "the input information supplied from the MCU 26 is radiated from the first and second antennas 29 and 30, respectively, substantially at the same time." (See, for example, page 8, lines 29-32).

Applicants submit that features recited by claims 1, 16, and 30 are not taught by the cited art, alone or in combination. As provided in MPEP §2143.03 "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F. 2d 1981, (CCPA 1974)."

Neither Berstis nor Hsien, or an *arguendo* combination of Berstis and Hsien teach substantially simultaneously transmitting signals having different carrier frequencies; let alone carrier frequencies modulated with the same input information.

Hsien merely teaches (see, for example, col. 3, lines 47-51):

a variable frequency modulator circuit 74 which selectively changes the amount of frequency deviation of the oscillation frequency based on the different voltages which are received.

and that (see, for example col. 4, lines 12-15):

switch 75 is coupled to variable frequency modulator circuit 74 to selectively provide high frequency circuit 78 with one of two channels or frequencies.

(Emphasis added).

The Examiner mistakenly contends that Hsien teaches "a transmission part transmitting signals generated by having a plurality of different carrier frequencies modulated with the same input information" citing transmitter circuit 28 illustrated in FIG. 2 of Hsien.

However, Hsien teaches rather that high frequency modulator 70 illustrated in FIG. 2 discusses two types of frequencies "Y1" and "Y2." Hsien teaches (see, for example, col. 4, lines 18-21) "switch 75 can be manually controlled by a user to allow the user to select different frequencies when employing more than one wireless cursor pointing device 28."

That is, according to Hsien, it is considered that when two wireless cursor pointing devices 28 are employed, a frequency, e.g., Y1 used in the high frequency modulator 70 of one wireless cursor pointing device 28 is different from a frequency, e.g., Y2 used in the high frequency modulator 70 of the other wireless cursor pointing device 28.

Thus, only one of the two frequencies Y1 and Y2 is selected and used in each wireless cursor pointing device 28. Accordingly, a high frequency modulator 70 taught by Hsien modulates either Y1 or Y2 selected by the user with an analog cursor control signal output from controller 56. Thus, a high frequency modulator 70 of Hsien does not modulate both Y1 and Y2 with the analog cursor control signal.

Accordingly, Hsien does not teach "a transmission part transmitting signals generated by having a plurality of different carrier frequencies modulated with the same input information," as the Examiner contends. As previously discussed in the in-person interview and agreed to by the Examiner this feature is not taught by Berstis. Rather, Berstis teaches (for example, col. 2, lines 3-4) that different information items are input to the remote control devices 101 and 103 because the remote control devices 101 and 103 are "adapted to be used by two (or more) people simultaneously and without interference."

### Summary

Since features recited by independent claims 1, 16, and 30 and respective dependent claims 2-11 and 17-23 are not taught by the cited art, alone or in combination and *prima facie* obviousness is not established, the rejection should be withdrawn and claims 1-11, 16-23 and 30 allowed.

**ITEM 2, PAGE-5: REJECTION OF CLAIM 12-15 AND 24-27 UNDER 35 U.S.C. §103(A) AS BEING UNPATENTABLE OVER BERTIS IN VIEW OF HSIEN (U.S.P. 6441,804)**

The Examiner rejects independent claims 12 and 24 and respective dependent claims 13-15 and 25-27 under 35 U.S.C. §103(a) as being unpatentable over Bertis in view of newly-cited art Hsien.

Applicants submit that features recited by claims 12-15 and 24-27 are not taught by the cited art, alone or in combination.

Claims 12 and 24, recite respectively, an input system and an input device, using claim 12 as an example, "an information generation part generating input information based on a given input operation; a transmission part transmitting signals generated by having a carrier frequency modulated with the same input information; a plurality of wave direction parts which are provided close to said transmission part so as to provide the signals transmitted from said transmission part with directivity so that the same input information is transmitted alternately from the wave direction parts; and a reception part receiving the transmitted signals and demodulating the signals into the same input information."

That is, "the same data of the same carrier frequency" is alternately output from the first and second antennas. For example, as illustrated in FIG. 8:

a switching control signal Sc supplied from the MCU 26 allows the transmission circuit 211 to transmit a signal alternately to the first and second antennas 29 and 30. By thus outputting the same data of the same carrier frequency alternately from the first and second antennas 29 and 30, a space diversity effect can be produced. Therefore, a signal can be efficiently transmitted irrespective of a state of the input device 210.

(See, page 12, lines 22-30).

Neither Bertis nor Hsien, alone or in combination teach, "a transmission part transmitting signals generated by having a carrier frequency modulated with the same input information."

Bertis merely teaches different information items are input to the remote control devices since (col. 2, lines 3-4) remote control devices are "adapted to be used by two (or more) people simultaneously and without interference."

Hsien merely teaches that one of the two frequencies Y1 and Y2 is selected and used in each wireless cursor pointing device 28.

Further, dependent claims recite features not taught by the art, alone or in combination. For example, claims 13 and 25, both as amended, recite an input system and an input device, using claim 13 as an example, including "a switching part switchable between said wave

direction parts based on a control signal supplied from said information generation part so that each of the signals transmitted from the transmission part is supplied to a corresponding one of the wave direction parts."

The Examiner mistakenly contends that Berstis teaches "a switching part (button in figure 1D or switches 318, 320, 322, 324 of figure 2)." (Action at page 5).

However, Applicants submit that Berstis merely teaches (see, for example, col. 6, lines 27-28) the button illustrated in FIG. 1D and switches 318, 320, 322 and 324 determine the joystick position (column 6, lines 27-28).

Thus the art alone or in combination does not teach a device "switchable between the wave direction parts. "

### Summary

Since features recited by independent claims 12 and 24 and respective dependent claims 13-15 and 25-27 are not taught by the cited art, alone or in combination and *prima facie* obviousness is not established, the rejection should be withdrawn and claims 12-15 and 23-27 allowed.

### CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

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By: Paul W. Bobowiec  
Paul W. Bobowiec  
Registration No. 47,431

1201 New York Avenue, NW, Suite 700  
Washington, D.C. 20005  
Telephone: (202) 434-1500  
Facsimile: (202) 434-1501